RGCK、RGCL

Low–voltage Switch Boards of the Draw–out Version

Brief Introduction

The RGCK,RGCL series low–voltage switch boards of the draw–out version are produced by our company according to the need of the common users. It has the following features: advanced structure, beautiful appearance, high electric performance, high grade of protection, high safety and convenient maintenance etc. It is the ideal electricity distribution device for the low–voltage electricity supply system of the professions such as metallurgy, oil, chemical industry, electricity, mechanism and light textile etc. It is graded as the recommended product for reforming the two nets and the ninth batch of energy–saving product by our nation.

Conditions for using ambient

2.1 The altitude must be less equal to 2000meters.
2.2 The temperature of the surrounding air must be less equal to +40℃. Its average temperature must be less equal to +35℃ and the temperature of the surrounding air must be over equal to –5℃ within 24 hours.
2.3 The Atmospheric Conditions: The air should be clear. The relative humidity must be less equal to 50% when it is +40℃. When temperature is low, a higher relative humidity is allowed. For example, 90% when it is +20℃.
2.4 Place without the danger of fire and explosion, severe pollution, chemical corrosion or strenuous vibration.
2.5 The verticality must be less equal to 5°.
2.6 During transportation or storage, the controlling center must be apply to the following temperature:–25℃ ~ + 55℃, but within short time (less equal to 24 hours), the temperature must be less equal to 70℃.
2.7 If the above conditions cann’t be satisfied, the users should mention it to our company while ordering and solve it together.

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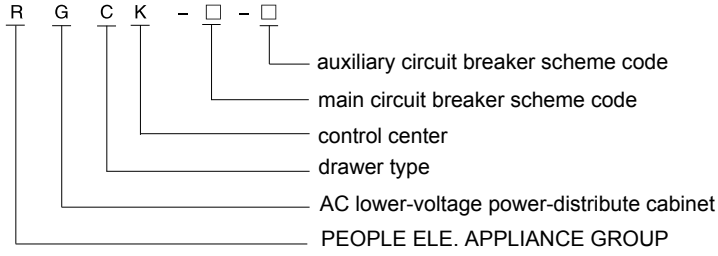
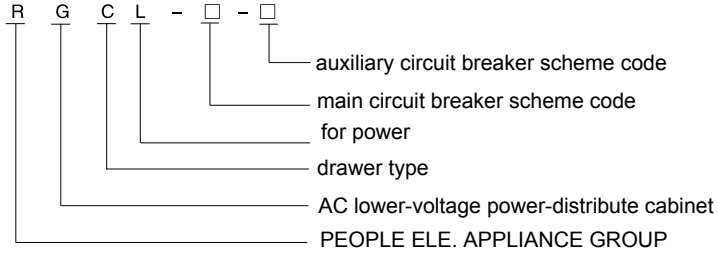
Model NO.





Main Technical Parameters

3.1 Rated insulation voltage: 660v.
3.2 rated working voltage: 380v 660v.
3.3 rated voltage of the auxiliary circuit: AC 220V 380V DC 110 V 220V.
3.4 using frequency: 50~(60) Hz.
3.5 rated current: the level bus bar must be less equal to 3150A,The vertical bus bar 630A, 800A.
3.6 rated short–time tolerant current: 105kA/1s,Neutral bus bar30kA/1s.
3.7 rated peak current: 105kA/0.1S, 50kA/0.1s.
3.8 the breaking capacity of the function unit (drawer): 50kA (effective value).
3.9 the protection grade of the cover board: IP30, IP40.
3.10 the installation of the bus bars: triphase four wires system, triphase five wires system.
3.11 meeting the criteria:
IEC–439 BS5486 VDE0660, GB7251,
NEMAIC2–322.JJB/T9661.
3.12 the manipulation method: local, remote, and automatic.

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Features of the Structure

The basic framework of the RGCK, RGCL is joint-installed structure. All the pieces of the framework are zinc plating and processed by spraying plastic. Screws to form the framework tightly connect them. After the components including the upper door, the back plate, the isolation board, the drawer, the installing supporter, the bus bars and the electric units etc. are added according to the need, a complete controlling center board is finished. The structural features of this board are listed as follows.

4.1 Shelves of the Board

The shelves of the board adopt special section. They are located by using the angle plate and are connected by screws without welding structure.

a. Modularization is carried out on the molding size and aperture size of the components and the intervals between the devices. (The module E is equal to 20mm, which is also available in the following part.)

b. The inside structural components are zinc plating.

c. The surface receives phosphate treatment and electrostatic epoxy powder coating.

d. The framework of the board is divided into three isolated areas bus bar house, function unit and cable house. This prevents the accident from being enlarged and brings convenient fixing with electricity.

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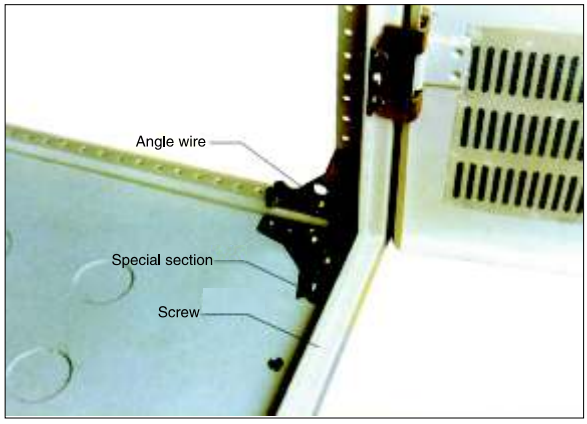

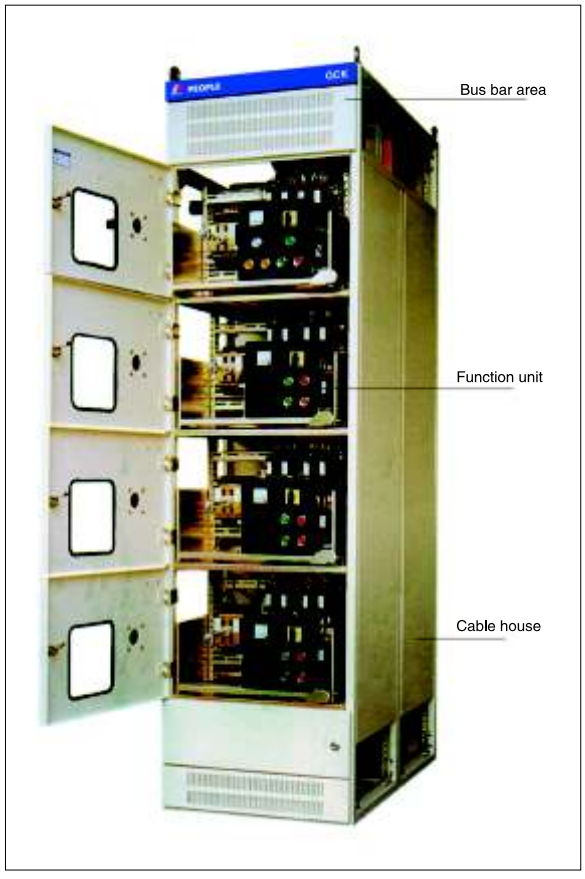

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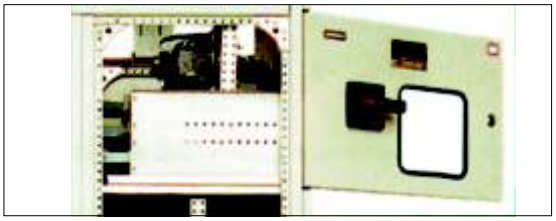

5.4 Function Unit (the drawers section)

a. Function Unit: Feeding Unit.

Electric Motor Unit.

Public Source Unit.

b. The height module of the drawer layers is 200mm and it has 6 size series:unit, 1 unit, 1 (½) units, 2units, 2(½) units and 3 units. The rated current of the unit circuit is less equal to 630A.

c. At most 9 one– unit or 18 one half unit drawers can be installed to the MCC board.

d. The door board of the isolation house is mechanically interlocked by the manipulation mechanism of the main switch and the drawer. The door board cann’ t be opened when the main switch is in the closing location.

e. The manipulation mechanism of the main switch can be locked in the closing or openinglocation by a prying lock. The electric equipment can be maintained and fixed safely.

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f. The function unit isolation houses are isolated by metal partitions.

g. With the pushing and the pulling the drawer, the valve in the isolation house can open and close automatically. Then it won't touch the vertical bus bar in the isolation house.

h. The main circuit in-and-out cable plug, the auxiliary circuit quadratic plug and the earthing plug are installed on the back of the function unit.

i. The earthin plug guarantee the continuity of the protective circuit when the drawer is in the isolation trial connection location.

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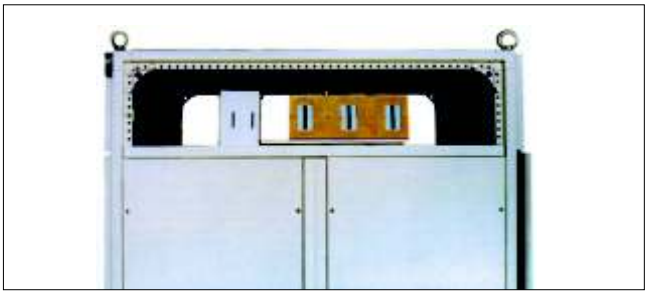
4.3 The Bus Bar System

a. RGCK, RGCL Bus Bar System adopts triphase four–wire system and triphase five–wire system. The level bus bar is installed on the top of the board. Wire N and wire PE can be installed both on the top and the lower part of the board.

b. The triphase level bus bars adopt copper ones. They have high mechanical intensity and elimination of heat.



The vertical bus bars adopt the carbonic eater engineering plastics' cover.

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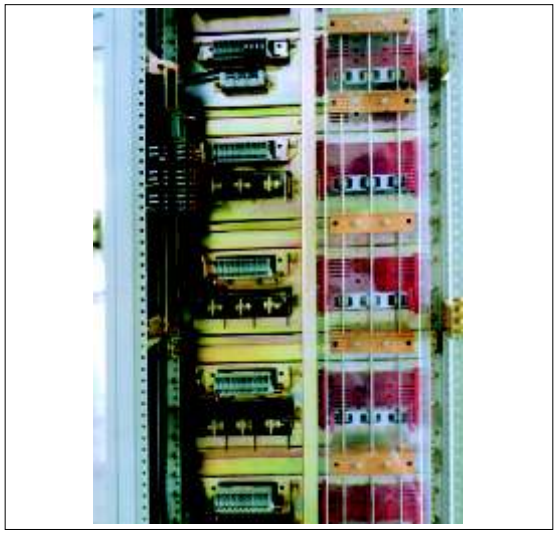

The Outside Size and the Installing Size

The efficient installing height is 1800.
5.1 The incoming board and the bus bar connection board The width of the board is divided according to the grade of the switch current and the way of in–and–out cable into:600;800;1000;1200; (800+400)mm.
The depth of the board is 800; 1000mm (1000mm is recommended; the depth of the upper in–and–out cable board must be 1000mm.).
5.2 The feeder board
width of the board: 600, 800mm.
depth of the board: 800, 1000mm (1000mm is recommended; the depth of the upper out cable board must be 1000mm).
5.3 The electric motor controlling board (MCC)
width of the board: 600, 600+200mm.
depth of the board: 800, 1000mm (1000mm is recommended; the depth of the upper out cable board must be 1000mm).

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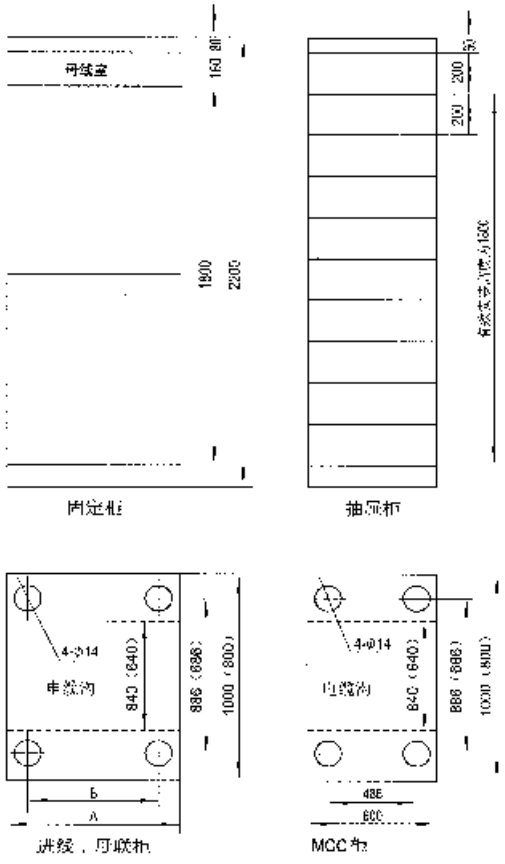
Name / Dimension	A	B
electric accept or feed	600	486
electric accept or busbar connection	800	686
electric accept or busbar connection	1000	886



Noting: The H height of the function units which can be combined of the out cable board is 1600. It can reach 1800 when electricity is not used.

Ordering Instructions

The following materials should be provided when the products are ordered:

6.1 the scheme number of the main circuit; unit capacity and the controlling mode of the auxiliary circuit (that is: local, remote and automatic control).

6.2 the pareto diagram of the switch board and the lay out chart of the electricity distribution house.

6.3 the mode of the in-and-out cable.

6.4 the surface color of the switch board.

6.5 If the above princle2 and principle 3 are not mentioned clearly, our factory will supply the standard board.

6.6 If the users want to ask for electricity leaking protection, this should be pointed out before the order. As for those special schemes, please negotiate with our factory and solve it together.